ATARI® PROGRAM exchange

BLIS™--BASIC PROGRAM LISTER
by
Image Marketing, Inc.

INSTRUCTIONS

USER-WRITTEN SOFTWARE FOR ATARI PERSONAL COMPUTER SYSTEMS

APX-20049

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ATARI 850 Interface Module

ELIS™ — BASIC PROGRAM LISTER

by

Image Marketing, Inc.

INSTRUCTIONS
9/1/81

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CONTENTS

INTRODUCTION . . . 1

Overview . . . 1
Required accessories . . . 1
Contacting the author . . . 1

USING BLIS . . . 2

Preliminary work . . . 2

Using special characters in REMark statements . . . 2
Storing your program file in LIST format . . . 2

Running BLIS . . . 3

Getting started . . . 3
Setting your options . . . 3
During printing and end of printing . . . 4
Nonprintable character translations . . . 6

SAMPLE NONFORMATTED PROGRAM LISTING . . . 8

SAMPLE BLIS-FORMATTED PROGRAM LISTING . . . 9

INTRODUCTION

OVERVIEW

BLIS[tm]--BASIC program LIStер--prints your ATARI BASIC programs in a clear, easy-to-follow format. You can print each routine on a different page, if you wish. In addition, BLIS indents logical units like FOR-NEXT loops and IF-THEN statements. It can also print your REMark statements in boldface, or it can print them as titles at the top of the page. Or, you can specify a title to be printed at the top of each page. BLIS automatically numbers the pages. If your program contains multiple statements per line, BLIS will print each statement separately, indenting as appropriate. Other features are running top titles, page numbers, use of the condensed character set to preserve the visual logic even with long statements, and conversion of nonprinting characters within strings to printed representations.

These features make debugging easier, because you can clearly see program blocks and subordination. These features also result in a format suitable for publication.

To use BLIS, you save in LIST format the program you want BLIS to print, load BLIS into computer memory, and answer five prompted questions for setting your options. These include starting and ending page numbers (in case you want to print only part of your program listing), whether you're using continuous paper or separate sheets, the name of your program file, and whether you want to print a running top title.

REQUIRED ACCESSORIES

16K RAM
ATARI 810 Disk Drive
ATARI BASIC Language Cartridge
ATARI 825 80-Column Printer

CONTACTING THE AUTHOR

Users wishing to contact Image Marketing, Inc., about BLIS may write to the company at:

P. O. Box 14
Gwynedd, PA 19436

USING BLIS

PRELIMINARY WORK

Using special characters in REMark statements

BLIS prints your program's standard REMark statements in the elongated character font of the proportional character set. It also removes the command word "REM" to emphasize the text of these statements.

You can create other effects by using three special characters at the start of your program's REMark statements. These characters and their effects are as follows.

CTRL-T	Use this character to prevent the the REM from printing in the elongated character set. These REMs won't appear as headings.
CTRL-↑	Use this character to print the REM statement at the top of the next page.
CTRL-↓ + nn	Use this character sequence (CTRL-down arrow, followed by a two-digit number, represented by "nn") to indicate the number of lines to skip in the listing. If you don't enter a number with CTRL-down arrow, BLIS skips one line.

Storing your program file in LIST format

To use BLIS for formatting an ATARI BASIC program, you must first store your BASIC program on diskette using BASIC's LIST command. This LIST format file serves as input to BLIS. Thus, if you stored your file on diskette in SAVE format, LOAD the file into RAM and then store it back on diskette using the LIST command. If you stored your file on cassette, load it into RAM and store it on diskette. If it's already resident in RAM, simply store it on diskette using the LIST command. For example, if your BASIC program is named PROG.LST, then you'll store it on diskette via the command (we'll store it on the diskette in drive one):

```
LIST "D:PROG.LST"
```

If you were to print this file or display it on your TV screen, it would look the same as if you issued the direct mode command "LIST" while the program is resident in RAM. The first sample listing (of part of the BLIS program) at the end of these instructions illustrates this normal listing format.

RUNNING BLIS

Getting started

(Note. If you're just starting a computer session, follow all these steps. If you've already been working with your system, then go to step 3 and follow the remaining steps, as appropriate.)

1. Insert the ATARI BASIC Language Cartridge in the (Left Cartridge) slot of your computer.

2. Turn on your disk drive(s).

3. When the BUSY light on your disk drive goes out, open the drive door and insert the BLIS diskette with the label in the lower right-hand corner nearest to you.

4. Turn on your computer and TV set.

5. Turn on your printer and interface module.

6. When the READY prompt displays on your TV screen, type RUN "D:BLIS.BAS" and press the RETURN key. If you're using more than one disk drive, remember to follow the device initial (D) with the number of the drive containing the BLIS diskette (e.g., RUN "D2:BLIS.BAS" for disk drive two). The program will load into computer memory and start.

Setting your options

After you load BLIS into RAM, BLIS will prompt you for all option settings. The prompts are as follows.

STARTING PAGE NUMBER?

To print less than the complete file (because of a printer jam, program change, and so on, affecting only some pages), enter the beginning page number in response to this prompt and press the RETURN key. If you simply press the RETURN key in response to this prompt, BLIS will print the entire document and it will skip the next prompt. If you make a mistake in entering a page number, the prompt will redisplay.

ENDING PAGE NUMBER?

To print a range of pages instead of printing to the end of the document, enter the number of the last page you want printed and press the RETURN key. If you simply press the RETURN key in response to this prompt, BLIS will print to the end of the document. If you make a mistake in entering a page number, the prompt will redisplay. If you type in an ending page number that is less than the starting page number, BLIS will sound the buzzer, display the message "ENDING PAGE LESS THAN STARTING PAGE", and redisplay the prompt.

SEPARATE SHEETS?

To print on noncontinuous sheets, enter a "Y", "y", or other response beginning with the letter "Y" and press the RETURN key. BLIS will stop at the end of every page and remind you to insert the next sheet in the printer. To print on continuous paper, press the RETURN key.

ENTER FILESPEC?

Type the name of your program's diskette file stored in LIST format in the form D:<filename> and press the RETURN key. If you have one disk drive and haven't yet inserted the diskette containing your LIST-formatted file, do so now. If you have more than one disk drive and the diskette containing your LIST-formatted file isn't in drive one, remember to precede the device initial with the drive number (e.g., D2:PROG.LST for drive two).

ENTER TITLE?

BLIS will print at the top of every page whatever you type in response to this prompt (remember to press the RETURN key). If you simply press the RETURN key and the first line of your program is a REMark statement, BLIS uses this statement as the title. If you simply press the RETURN key and the first line of your program isn't a REMark statement, BLIS won't print a title.

POSITION PAPER

This prompt lets you adjust the paper before BLIS starts printing. After you've positioned the paper, press the RETURN key to signal BLIS to begin.

BLIS displays one additional prompt if you specified separate sheets. The message

INSERT NEXT SHEET

displays whenever BLIS comes to the end of a page. Insert another sheet and press the RETURN key to signal BLIS to continue.

During printing and end of printing

While BLIS prints your program file, the display on your TV screen won't change (it contains only the prompts and your answers). In addition, BLIS will pause frequently during printing to read blocks of code.

When BLIS finishes printing your file, the READY prompt will display on your TV screen. If BLIS printed to the end of your file, it will print the message

==========END OF FILE==========

at the end of the listing. If it printed only one page or a range of pages, it won't print this message. In addition, the message

```
THE LISTING IS FINISHED
```

displays on your TV screen after printing a partial or complete listing, along with the READY prompt, indicating BLIS has turned control back over to BASIC.

The second sample listing (of part of the BLIS program) at the end of these instructions illustrates most of BLIS's formatting features.

Nonprintable character translations

BLIS translates each nonprintable character within a string in quotation marks to a printable representation. The following table presents the ATASCII decimal value and the printed representation BLIS uses for that value (notice that the characters are all underlined, to distinguish them from their regular counterparts). (See Appendix C, "ATASCII CHARACTER SET", in the ATARI 400/800 BASIC Reference Manual for a list of these characters.)

CHARACTER TRANSLATION TABLE

ATASCII value	BLIS printed representation
000	↑
001	A
002	B
003	C
004	D
005	E
006	F
007	G
008	H
009	I
010	J
011	K
012	L
013	M
014	N
015	O
016	P
017	Q
018	R
019	S
020	T
021	U
022	V
023	W
024	X
025	Y
026	Z
027	e
028	u
029	d
030	l
031	r

CHARACTER TRANSLATION TABLE, continued

ATASCII value	BLIS printed representation
096	♦
123	♠
125	♣
126	♥
127	♦
156	↑
157	↓
158	←
159	→
253	♪
254	♪
255	♪

(Note. Most inverse video characters print the same as normal video characters.)

Sample Nonformatted Program Listing

```
1 REM BLIS: Basic List program - Copyright (c) 1981 by Image Marketing Inc.
2 REM MAINLINE
3 DIM HOME$(64):FOR I=1 TO 64:HOME$(I,I)="
                                          ":NEXT I
4 PRINT ")_________BLIS__(Version_1.0)_________":PRINT :PRINT
5 DIM TITLE$(70),LINESAVE$(132),XTRANS$(12),TRANS$(44):GOSUB 2000
6 DIM SEQSTART$(4),SEQEND$(2):LET SEQSTART$="" :LET SEQEND$=""
7 TRUE=1:FALSE=0:PLACE=11:INDENT=11:PAGE=0:INDENTHOLD=11:BKLEN=1:SHEETS=FALSE:PG
LEN=58
8 DIM FILE$(15),LINEIN$(128),LINEOUT$(132),LINEID$(6),STMT$(128),SEQ1$(4),SEQ2$(
2),P$(5)
9 DIM BLANK$(132):FOR X=1 TO 132:BLANK$(X,X)=" ":NEXT X
10 REM 5 GET PARAMETERS
11 PRINT "STARTING PAGE NUMBER ";:INPUT P$:IF P$="" THEN 16
12 TRAP 11:SP=VAL(P$)
13 PRINT "ENDING PAGE NUMBER ";:INPUT P$:IF P$="" THEN 17
14 TRAP 13:EP=VAL(P$):IF EP<SP THEN PRINT ")ENDING PAGE LESS THAN STARTING PAGE"
:GOTO 11
15 GOTO 25
16 SP=1:EP=100:GOTO 25
17 EP=100:GOTO 25
18 PRINT "SEPERATE SHEETS";:INPUT P$:IF LEN(P$)>0 THEN IF P$(1,1)="Y" OR P$(1,1)
="y" THEN SHEETS=TRUE:PGLEN=50
19 RETURN
25 GOSUB 18:PRINT "ENTER FILESPEC";:INPUT FILE$
26 PRINT "ENTER TITLE";:INPUT TITLE$:PRINT "POSITION PAPER":INPUT P$
27 IF TITLE$="" THEN STMTIN=TRUE:GOTO 29
28 GOSUB 500
29 TRAP 10
30 OPEN #1,4,0,FILE$
40 TRAP 200
45 IF STMTIN=TRUE THEN INPUT #1;LINEIN$:GOTO 70
47 REM 5 GET NEW LINE
50 INPUT #1;LINEIN$
51 LET XNEW=TRUE
53 REM 5 GET LINE NUMBER
60 LINENO=VAL(LINEIN$)
70 FOR I=1 TO LEN(LINEIN$):IF LINEIN$(I,I)=" " THEN 90
80 NEXT I
90 LINEIN$=LINEIN$(I+1)
95 IF STMTIN=TRUE AND LINEIN$(1,3)<>"REM" THEN TITLE$=" ":GOSUB 500:STMTIN=FALSE
:GOTO 50
96 IF STMTIN=TRUE THEN TITLE$=LINEIN$(4):STMTIN=FALSE:GOSUB 500:GOTO 50
100 GOSUB 600
110 LINEID$=STR$(LINENO)
120 LINEOUT$(7-LEN(LINEID$),6)=LINEID$:SEQ1$="":SEQ2$=""
130 GOSUB 300
140 IF LINECOUNT>58 THEN GOSUB 400
150 GOTO 50
```

```
2          MAINLINE
3    DIM HOME$(64):
     FOR I=1 TO 64:
        HOME$(I,I)="J":
     NEXT I
4    PRINT "c_______BLIS__(Version_1.0)_______":
     PRINT :
     PRINT
5    DIM TITLE$(70),LINESAVE$(132),XTRANS$(12),TRANS$(44):
     GOSUB 2000
6    DIM SEQSTART$(4),SEQEND$(2):
     LET SEQSTART$="eQeN":
     LET SEQEND$="eT"
7    TRUE=1:
     FALSE=0:
     PLACE=11:
     INDENT=11:
     PAGE=0:
     INDENTHOLD=11:
     BKLEN=1:
     SHEETS=FALSE:
     PGLEN=58
8    DIM FILE$(15),LINEIN$(128),LINEOUT$(132),LINEID$(6),STMT$(128),SEQ1$(4),SEQ2$(2),P$(5)
9    DIM BLANK$(132):
     FOR X=1 TO 132:
        BLANK$(X,X)=" ":
     NEXT X




10         GET PARAMETERS
11   PRINT "STARTING PAGE NUMBER ";:
     INPUT P$:
     IF P$="" THEN 16
12   TRAP 11:
     SP=VAL(P$)
13   PRINT "ENDING PAGE NUMBER ";:
     INPUT P$:
     IF P$="" THEN 17
14   TRAP 13:
     EP=VAL(P$):
     IF EP<SP THEN
        PRINT "ZENDING PAGE LESS THAN STARTING PAGE":
        GOTO 11
15   GOTO 25
16   SP=1:
     EP=100:
     GOTO 25
17   EP=100:
     GOTO 25
18   PRINT "SEPERATE SHEETS";:
     INPUT P$:
     IF LEN(P$)>0 THEN
        IF P$(1,1)="Y" OR P$(1,1)="y" THEN
           SHEETS=TRUE:
           PGLEN=50
19   RETURN
```

```
 25   GOSUB 18:
      PRINT "ENTER FILESPEC";:
      INPUT FILE$
 26   PRINT "ENTER TITLE";:
      INPUT TITLE$:
      PRINT "POSITION PAPER":
      INPUT P$
 27   IF TITLE$="" THEN
         STMTIN=TRUE:
         GOTO 29
 28   GOSUB 500
 29   TRAP 10
 30   OPEN #1,4,0,FILE$
 40   TRAP 200
 45   IF STMTIN=TRUE THEN
         INPUT #1;LINEIN$:
         GOTO 70


 47            GET NEW LINE
 50   INPUT #1;LINEIN$
 51   LET XNEW=TRUE


 53            GET LINE NUMBER
 60   LINENO=VAL(LINEIN$)
 70   FOR I=1 TO LEN(LINEIN$):
          IF LINEIN$(I,I)=" " THEN 90
 80   NEXT I
 90   LINEIN$=LINEIN$(I+1)
 95   IF STMTIN=TRUE AND LINEIN$(1,3)<>"REM" THEN
         TITLE$=" ":
         GOSUB 500:
         STMTIN=FALSE:
         GOTO 50
 96   IF STMTIN=TRUE THEN
         TITLE$=LINEIN$(4):
         STMTIN=FALSE:
         GOSUB 500:
         GOTO 50
100   GOSUB 600
110   LINEID$=STR$(LINENO)
120   LINEOUT$(7-LEN(LINEID$),6)=LINEID$:
      SEQ1$="":
      SEQ2$=""
130   GOSUB 300
140   IF LINECOUNT>58 THEN
         GOSUB 400
150   GOTO 50
```

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ATARI PROGRAM EXCHANGE

REVIEW FORM

We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many software authors are willing and eager to improve their programs if they know what users want. And, of course, we want to know about any bugs that slipped by us, so that the software author can fix them. We also want to know whether our documentation is meeting your needs. You are our best source for suggesting improvements! Please help us by taking a moment to fill in this review sheet. Fold the sheet in thirds and seal it so that the address on the bottom of the back becomes the envelope front. Thank you for helping us!

1. Name and APX number of program _____

2. If you have problems using the program, please describe them here.

_____

_____

_____

3. What do you especially like about this program?

_____

_____

_____

4. What do you think the program's weaknesses are?

_____

_____

_____

5. How can the catalog description be more accurate and/or comprehensive?

_____

_____

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this program?

_____ Easy to use
_____ User-oriented (e.g., menus, prompts, clear language)
_____ Enjoyable
_____ Self-instructuve
_____ Useful (non-game software)
_____ Imaginative graphics and sound

7. Describe any technical errors you found in the user instructions (please give page numbers).

8. What did you especially like about the user instructions?

9. What revisions or additions would improve these instructions?

10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?

11. Other comments about the software or user instructions:

STAMP

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[seal here]